

permanent anatomical contact and nutritional association. *Rhizobium* sp. and *D. pectinata* have entered reciprocal nutritive symbiosis, while the antagonism of the parasitic *N. floribunda* is imposed on the nodular manifestation of the primary association.

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Movements of Ringed Straw-necked Ibis in Western Australia.

—Some suggestive indications of the seasonal movement of the Straw-necked Ibis (*Threskiornis spinicollis*) in Western Australia are provided by three recoveries of birds which we ringed at the ibis rookery at Wallering Swamp, near Gingin on October 28, 1956. We ringed 197 young birds (as "runners") on that day, there being smaller young, as well as eggs, in nests at the same time. Three of the birds were recovered during the following twelve months.

The first bird (No. 120-01754) was found injured, 8 miles east of Carnarvon on January 7, 1957, by Mr. R. C. Naillard, of the Gascoyne Research Station. The second (120-01707) was found at Pindarra Pool, a permanent pool on the Yanrey River (a tributary of the Ashburton), in June, 1957, by an employee of Towera Station. The third bird (120-01798) was found in a dying condition at Leake Street, North Perth, in early October, 1957, by Mr. L. H. Needham.

These recoveries suggest that some at least of the young birds of the Wallering Lake colony leave the South-West and fly north immediately after fledging and may return south again by the following spring. The distance flown from Gingin to Carnarvon is approximately 500 miles direct, indicating a rather rapid post-breeding dispersal. Whether the adults also undergo a similar circuit must await further recoveries of ringed birds.

This demonstration of an exodus of immature birds from the South-West over a period which includes the winter months heightens interest in the origins of the birds which occur in winter in the south and whose numbers in some years may swell enormously. In his documentation of the 1952 irruption D. L. Serventy (*W.A. Nat.*, 3, 1953: 183) suggested the visitors were from northern Australia, driven south by unusually severe drought conditions there.

One of us (P.J.F.) visited Wallering Swamp on November 10, 1957, for a projected ringing programme but found that the ibis were not nesting at the swamp that season. No ibis at all were seen but several Nankeen Night Herons (*Nycticorax caldonicus*), which in previous years bred here in company with the ibis, were incubating eggs. The water level of the swamp was about 19 inches lower than it was at the corresponding time last year. The surrounding countryside was very dry. The annual rainfall at Gingin in 1957 was only 25.3 inches, compared with 29.4 inches in 1956, and the mean of 30.8 inches.

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